

IN THE CLAIMS

Please amend the claims as follows:

1. (currently amended) A system of medical small bore tubing for multiple different applications, the system in each application comprising connectors between tubing of the system ~~and/or~~ or components of the system, wherein said connectors comprise:

a male component having a stub, a first key and a through-bore for the passage of fluid to be transported; and

a female component having a stub, a second key and a through-bore for the passage of fluid to be transported;

said male and female components being adapted to be interconnected in a fluid-tight manner with inter-engagement of said first and second keys, and said stubs being adapted for connection to tubing of the system or components of the system, and at least one of said male and female components having a grip; wherein, in each application:

e) a) the first and second keys are unique to each application of the system so that they prevent connection of a female component of one application to a male component of another application; and

e) b) said grip has application affordance unique to the application for which it is intended, ~~which~~ the affordance ~~comprises~~ comprising both visual and tactile cues; ~~whereby~~ wherein misconnections between tubing and components of said different applications of the system are prevented and attempts by users to effect said misconnection are discouraged by said affordance of said grip.

2. (currently amended) A system as claimed in claim 1, wherein said application affordance comprises a shape of the grip that is suggestive of ~~the~~ a part of a human body for which the application is intended.

3. (original) A system as claimed in claim 2, wherein a first application is neuraxial, and said shape of the grip is generally cylindrical having a longitudinal spine and encircling ribs suggestive of the human spine and ribs.
4. (currently amended) A system as claimed in claim 2-~~or 3~~, wherein a second application is respiratory, and said shape of the grip is generally cylindrical having alternating frusto-conical sections suggestive of a bellows.
5. (currently amended) A system as claimed in claim 2,~~3 or 4~~, wherein a third application is enteral, and said shape of the grip is generally cylindrical with bulges down its length suggestive of the human colon.
6. (currently amended) A system as claimed in ~~any of claims~~ claim 2 to 5, wherein said visual and tactile cues of the application affordance are provided only by said shape of the grip.
7. (currently amended) A system as claimed in ~~any of claims 11 to~~ claim 1, wherein said grip also comprises a mechanism affordance unique to ~~the~~ a method of interconnection between said male and female components.
8. (currently amended) A system as claimed in claim 7, wherein said method of interconnection comprises a twisting step; and wherein said mechanism affordance ~~comprising~~ comprises a wing of said grip.
9. (currently amended) A system as claimed in claim 7-~~or 8~~, wherein said method of interconnection comprises a pushing step; and wherein said mechanism affordance ~~comprising~~ comprises a waist of said grip.

10. (currently amended) A system as claimed in claim 7, ~~8 or 9~~, wherein said method of interconnection comprises a locking step₁; and wherein said mechanism affordance comprising comprises a button of said grip.

11. (currently amended) A kit of components of a medical small-bore tubing connection system as claimed in ~~any preceding~~ claim 1, the kit comprising:

a first converter having:

a through bore₁; ~~and~~

a standard female connector₁;

a different male connector element₁ and

a latching mechanism on the different male connector adapted to engage a flange of a corresponding female connector to which said different male connector is sealingly mateable; and

a second converter having:

a through bore₂; ~~and~~

a standard male connector₂;

a different female connector that corresponds with the different male connector of said first converter; and

a flange adapted for engagement with the latching mechanism of said first converter.

12. (original) A kit as claimed in claim 11, in which said standard connectors are 6% luer connectors.

13. (currently amended) A kit as claimed in claim 11 ~~or 12~~, in which said different connectors are reduced-diameter 6% conical connectors.

14. (original) A kit as claimed in claim 13, in which said reduced-diameter comprises about 3 mm for the end of the male connector, and about 3.3 mm for the opening of the female connector, and wherein each connector has a length of about 7.5 mm.

15. (currently amended) A kit as claimed in ~~any of claims~~ claim 11 to 14, further comprising a syringe, the syringe having a to the standard outlet; of which syringe said wherein the standard outlet is permanently secured to the first converter is permanently secured.

16. (currently amended) A kit as claimed in claim 15, ~~in which said permanent securing is effected~~ wherein the standard outlet is permanently secured to the first converter by welding or adhering said first converter to ~~such~~ said outlet.

17. (currently amended) A kit as claimed in claim 16, ~~in which~~ wherein said welding is ultrasonic welding.

18. (currently amended) A kit as claimed in ~~any of claims~~ claim 11 to 17, further comprising ~~an~~ a hypodermic needle, said needle having said different female connector formed directly thereon.

19. (currently amended) A kit as claimed in ~~any of claims~~ claim 11 to 18, ~~in which~~ wherein said latching mechanism comprises a threaded collar and said flange comprises thread elements.

20. (currently amended) A kit as claimed in ~~any~~ claim 19, ~~in which~~ wherein the latching mechanism on the first converter is axially slidable between limits, and is rotatably free, ~~on the~~

~~first converter.~~

21. (currently amended) A kit as claimed in ~~any of claims~~ claim 11 to 20, ~~in which~~ wherein the latching mechanism is visually coded to identify ~~the~~ a class of medical applications for which it is intended.

22. (currently amended) A kit as claimed in ~~any of claims~~ claim 11 to 21, ~~in which~~ wherein the standard male connector of said second converter has an integral latching mechanism formed thereon adapted to co-operate with flange elements provided on the standard female connector of said first converter to lock said standard male and female connectors together.

23. (currently amended) A kit as claimed in ~~any of claims~~ claim 11 to 22, ~~in which~~ wherein said different female connector comprises a face having castellations; ~~on its face, whereby and~~ wherein leak paths are ~~provide~~ provided between said castellations in the event that a standard male connector is butted against said face.

24. (currently amended) A syringe adapted for connection to the second converter of a kit as claimed in ~~any of claims~~ claim 11 to 23, the syringe comprising an outlet having a different male connector to a standard male connector and a latching mechanism on the different male connector adapted to engage a flange of a corresponding female connector to which said different male connector is sealingly mateable.

25. (currently amended) A component of medical tubing having a standard male connector and a standard female connector to which a first connector and a second connector of a kit as claimed in ~~any of claims~~ claim 11 to 23 has have been connected ~~to male and female standard connections of said component.~~

26. (currently amended) A component as claimed in claim 25, ~~when dependent~~ wherein the standard female connector of said first converter comprises flange elements; and wherein the standard male connector of said second converter has an integral latching mechanism formed thereon adapted to co-operate with the flange elements on claim 22, of the standard female connector of said first converter to lock said standard male and female connectors together, and wherein ~~in which~~ said connections have been rendered permanent by application of adhesive between a latching mechanism on the component and the standard female connector of the first converter and between the latching mechanism of the second converter and the female connector of the component.

27. (currently amended) A component as claimed in claim 25 ~~or 26~~, which component is a filter, valve or tube junction.

28. (currently amended) A method of introducing into use a new connection system for an existing medical small bore tubing system that employs standard male and female connectors adapted to be sealingly mated together, said method comprising the steps of:

- d) a) providing a plurality of kits ~~kit~~ as claimed in ~~any of claims claim 11 to 23~~;
- e) b) permanently connecting the standard female connectors of said first converters to the standard male connectors of components of said existing system; and
- f) c) permanently connecting the standard male connectors of said second converters to the standard female connectors of components of said existing system.

29. (currently amended) A method as claimed in claim 28, ~~in which~~ wherein said permanent connection is by ultrasonic welding.

30. (currently amended) A method as claimed in claim 28, ~~when dependent on claim 22,~~
wherein the standard female connector of said first converter comprises flange elements; and
wherein the standard male connector of said second converter has an integral latching
mechanism formed thereon adapted to co-operate with the flange elements of the standard
female connector of said first converter to lock said standard male and female connectors
together; and in which wherein said permanent connection is by adhesion through adhesive
disposed between the inside of said latching mechanism and the outside of said standard female
connector.

31. (currently amended) An article of a medical small bore tubing system as claimed in ~~any of~~
~~claims claim 1 to 10, which the~~ article ~~comprises~~ comprising: a connector having a male or
female component, a stub, a grip, a key and a through-bore for the passage of fluid to be
transported, said component being adapted to be connected in a fluid-tight manner with a
corresponding component of another connector and with inter-engagement of said key with the
key of said other component, and said stub being connected to said article; ~~wherein~~ wherein said grip
has application affordance unique to the application for which the article is intended, ~~which the~~
~~affordance comprises~~ comprising both visual and tactile cues.